



## DEPARTMENT OF NATURAL RESOURCES

December 23, 2005

### Hand Delivered

Mr. Gary Rainwater  
AmerenUE  
1 Ameren Plaza  
1901 Chouteau Avenue  
P.O. Box 66149, MC 602  
St. Louis, MO 63166-6149

RE: Third Emergency Declaration: Taum Sauk Upper Reservoir Failure at Johnson Shut-Ins State Park - - EER Incident Number 051214-0620-LSR, Reynolds County

Dear Mr. Rainwater:

The Missouri Department of Natural Resources (department) is in receipt of AmerenUE's December 22, 2005, Phase I Action Response Plan ("December 22, ARP") submitted to the department in accordance with the December 21, 2005, Second Emergency Declaration. This Third Emergency Declaration constitutes the departments response to the December 22, ARP.

### 1. Phase I - Plan of Action for Debris Removal.

The department approves the December 22, ARP for Phase I debris removal with the following modifications and comments.

Any chips stockpiled on-site must only be stockpiled on a temporary basis for staging in order to coordinate efficient removal off site, and must be done with approval of the on-scene coordinator ("OSC"). The debris disposal plan requested by the department in the December 21, 2005, Second Emergency Declaration is a disposal plan for permanent disposal of all debris, not just wood debris, for the off-site location. The department still awaits this plan, but preparation and submittal of the plan should not impede immediate removal of debris off site. If appropriate and safe, the department encourages AmerenUE to provide debris wood suitable for firewood or other uses or chips to the public from the off-site location.

In addition to chipping wood debris, the department recognizes the additional benefit burning wood debris may provide in handling the extremely large quantity of material. If AmerenUE provides a reasonable plan to the department for burning wood debris, in addition to chipping, the department will immediately review it and respond appropriately. Physical and ecological



constraints within the park severely limit suitable burning locations. Any wood burning plan should consider locating an above ground wood burning area in the location of the previous park wood storage lot.

The department recognizes that additional erosion control efforts may utilize wood debris chips or mulch material, and that AmerenUE is investigating that possibility. However, until the department approves a plan which incorporates the use of chips or mulch, such use on-site is not authorized.

## **2. Plan of Action for Removal of Sediment and Debris from Bin Wall Area**

The department approves the December 22, ARP Plan of Action for Removal of Sediment and Debris from the Bin Wall with the following modifications and comments.

Given the enormity of the sediment load placed in the river, the department would like the bin wall engaged as a sediment collection system as soon as reasonably possible. The department strongly encourages AmerenUE to develop its plan relating to this as quickly as possible. The plan must also fully address potential additional sedimentation from the removal activity, including return flow from any sediment staging or storage areas.

On December 22, 2005, representatives of the department spoke with Mr. Bill Tucker of MacTec regarding AmerenUE's flocculation assessment for the lower reservoir. Mr. Tucker agreed to provide the department with material safety data sheets ("MSDS") and other applicable information on potential flocculates, including toxicity testing. The department encourages AmerenUE to provide this information as quickly as possible for review. As was discussed with Mr. Tucker, AmerenUE must have department approval before adding any chemical flocculates to waters of the state.

Regarding Section 2.c., Evaluation of Downstream Risk from High-Turbidity Release, AmerenUE should clarify whether this management option refers to active flushing of the reservoir to move sediment downstream or to allow the turbidity to naturally decline. All evaluation should extend to the mainstem Black River including downstream of Clearwater Lake.

Applicable monitoring requirements are addressed in Section 5, below.

## **3. Plan of Action to Address Environmental Threats Posed by the Scour Hole, the Associated Rock/Debris Dam, and Sediment Closure of the River Below the Scour Hole**

### **a. Evaluation of Potential Impacts of Precipitation Events.**

The department approves the evaluation plan as outlined in the Proposed Action Element chart located at page 5 of the December 22, ARP.

**b. Sedimentation Impact Assessment on Channelization and Water Quality**

The department approves the assessment plan with the following modifications and comments.

The drainage channels for Cope Hollow should be opened immediately. Execution of this activity shall be coordinated with the OSC.

AmerenUE anticipates assessment of re-establishing the preexisting channel of the East Fork of the Black River taking until January 23, 2006. The department is concerned about the length of time this assessment will take. During this assessment period there is a possibility of rain events causing flooding in, and/or sediment loading from, the campground area. AmerenUE shall by December 29, 2005, submit a plan to the department for the placement of a temporary rock structure along the west side of where the East Fork of the Black River is currently flowing to avoid flooding of the campground area. The plan shall address using existing rock debris or other native stone for the structure.

**c. Impacts of Intentional Release of Scour Hole Water**

The department is currently evaluating whether lowering the water level in the scour hole is prudent in light of its use as a sediment retention basin for material discharging from the Proffit Mountain channel.

In light of potential flooding hazards, as soon as reasonably possible, AmerenUE shall notch the scour hole where its flow currently enters the old channel of the East Fork of the Black River. See hand written notation to "Notch" on Attachment A hereto. The notch shall be sufficient to provide flow through for potential flood water from a rain event. Access needed for this activity shall be coordinated with the OSC.

**d. Implementation of Sediment Reducing Devices in the Proffit Mountain Channel**

AmerenUE proposes using two distinct mitigation techniques for reducing sedimentation in the Proffit Mountain drainage way channel.

The first proposed technique is installation of stone blankets or beds of winter wheat in areas to be identified by walk through by an engineer or sedimentation expert. Before the department can fully evaluate the prudence of this plan, the department needs a report identifying the locations of these proposed areas. Accordingly, AmerenUE shall as soon as practicable, but no later than December 29, 2005, provide such a report to the department. Also, the report shall address using

existing on site rock dislodged from Proffit Mountain or other native stone as stone blanket material.

The second proposed technique is installation of two sediment check dams across the existing drainageway. The department approves the construction of two temporary check dams across the existing drainageway. AmerenUE shall, to the extent feasible, use existing on site rock dislodged from Proffit Mountain or other native stone to construct the temporary check dams. AmerenUE shall monitor potential overflow from the temporary check dams to determine if additional check dams are necessary.

AmerenUE shall as soon as practicable, but no later than December 29, 2005, provide a report to the department addressing access to the locations of the two temporary check dams to be constructed through use of a temporary low water crossing over the scour hole dam. The report shall address the construction of a temporary low water crossing, including the feasibility of using existing on site rock dislodged from Proffit Mountain or other native stone. The report shall address the possibility of using the temporary low water crossing structure for sediment retention. The report shall also identify how the temporary low water crossing will be removed. The department will evaluate the prudence of accessing the drainage way for construction of the two temporary check dams through a temporary low water crossing or the possible construction of a new road off of Highway N.

**e. Proposed Access Routes**

The department approves the continued evaluation of access routes, with the modification that the access route concerns raised in Section 3.d. shall also be evaluated.

**4. Plan of Action to Address Potential Sedimentation and Flooding in the Campground Area**

The department approves the continued evaluation of alternatives for controlling erosion and transport of sediment from the park area by discharges from the five identified points of discharge and other potential smaller flows.

Immediate need for construction of temporary check dams or other structures shall be coordinated with the OSC.

**5. Plan of Action for Monitoring of Sediment Discharge and Water Quality**

The department approves the December 22, ARP Plan of Action for Monitoring of Sediment and Water Quality with the following modifications and comments.

AmerenUE shall include an additional station located approximately one mile below the Clearwater Dam.

In addition to the proposed parameters, turbidity, conductivity, and instream discharge measurements must be included. The department concurs with beginning the monitoring immediately. However, at a minimum, the sampling frequency should be weekly. Any reduced frequency would be subject to the department's prior approval. All data must be provided to the department.

An alternative that Ameren UE may consider is working with USGS to re-establish the USGS gaging stations which would provide real time discharge and water quality data relative to suspended sediment transport. If such an agreement is established, it could supplant some or all of Ameren UE's long term monitoring stations. Again, this would be subject to department approval.

We agree that a benthic invertebrate sampling program should be conducted to monitor and evaluate potential impacts to the East Fork and mainstem Black River. The study must receive prior department approval.

#### **6. Immediate Waste Clean-Up and Disposal**

The department approves the December 22, ARP for immediate waste clean-up and disposal.

#### **7. Complete Phase I restoration of the Cemetery**

The department approves the December 22, ARP for complete Phase I restoration of the cemetery.

#### **8. Immediate Removal and Disposal of Wastewater from Sewage Lagoon**

The department approves the December 22, ARP for immediate removal and disposal of wastewater from the sewage lagoon.

#### **9. Submittal of daily Progress Reports**

The department approves the December 22, ARP for Submittal of daily Progress Reports

Additionally, AmerenUE shall coordinate with the OSC to establish a temporary fresh water supply and temporary wastewater holding system necessary to carry out the activities required on site. All wastewater must be trucked from the site for proper disposal at a permitted facility.

Mr. Gary Rainwater  
Page Six

As the department has previously stated, the cleanup and restoration will be conducted in several phases, many of which will need discussion and planning. As this incident progresses, additional phases of the environment and park restoration will be dictated for implementation in future discussions and correspondence, including possible modifications or amendments to previous orders or requests.

The OSC continues to be the department's Emergency Response Unit (EER). The department's on site EER staff is Mr. Jackson Bostic (573) 840-9485 and Mr. Alan Reinkemeyer, the department's EER Section Chief (573) 526-3384.

Any matter of which AmerenUE is aware that may cause additional environmental harm if not immediately addressed shall be brought to the attention of the OSC.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

*Original signed by Doyle Childers*

Doyle Childers  
Director

DC:ksd

c: Kurt Schaefer, MDNR Director's Office  
Doug Eiken, MDNR Division of State Parks  
Jeff Staake, MDNR Director's Office  
Gary Gaines, SERO

**Received on-site by:**

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**AmerenUE**

\_\_\_\_\_  
**Name/Title**

\_\_\_\_\_  
**Date**